



100

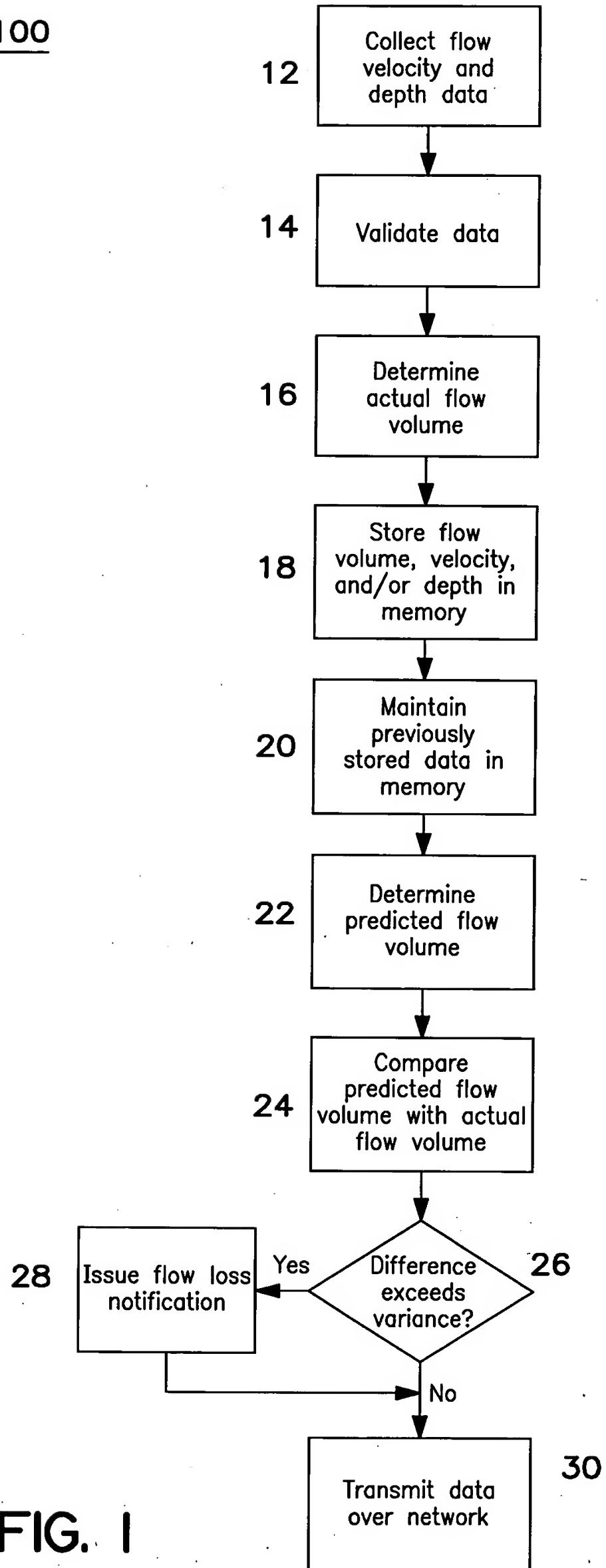


FIG. 1

Flow Loss Detection

The meter "learns" the typical flow pattern for weekends and weekdays

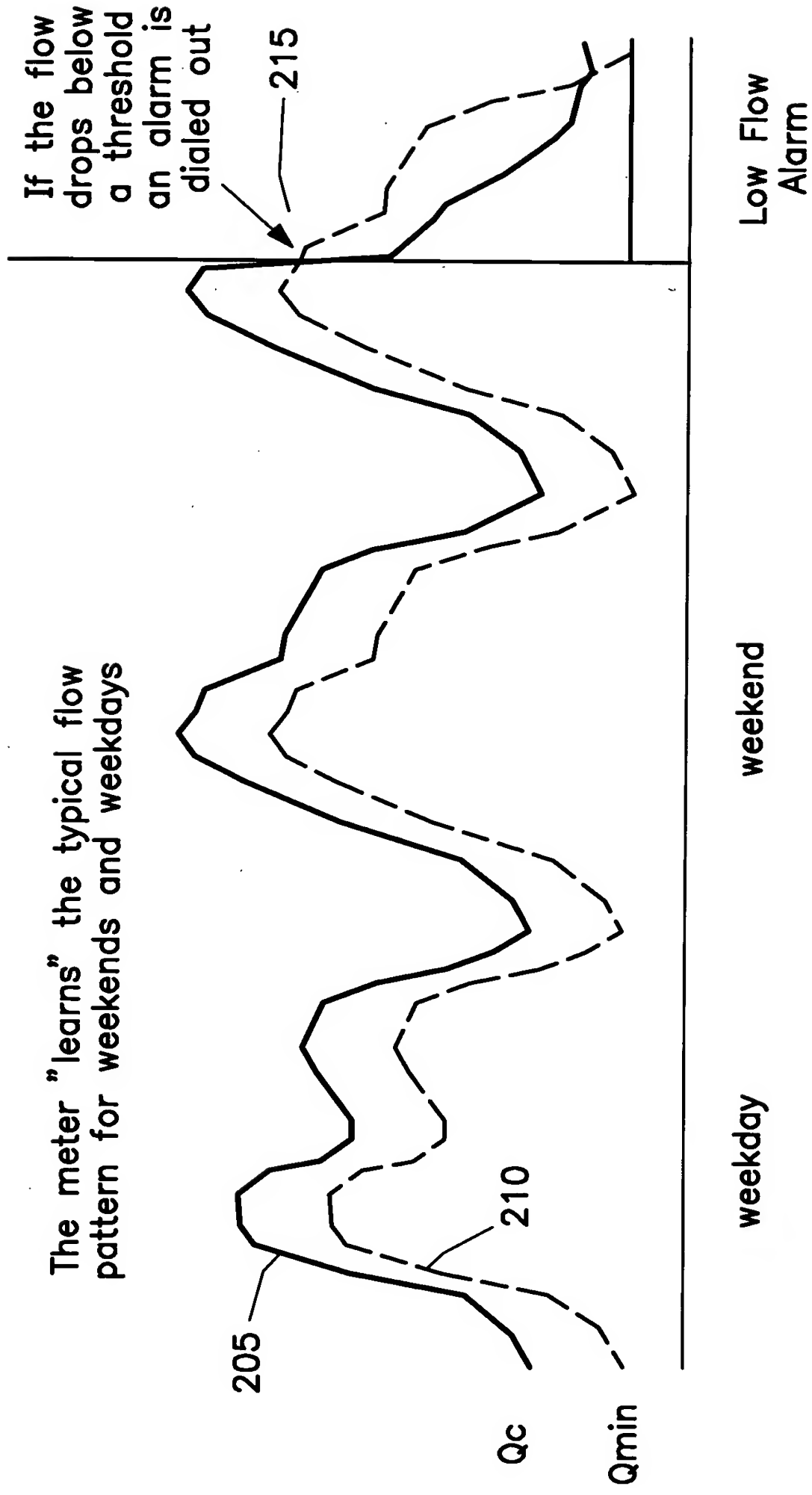


FIG. 2





Wet Weather Performance

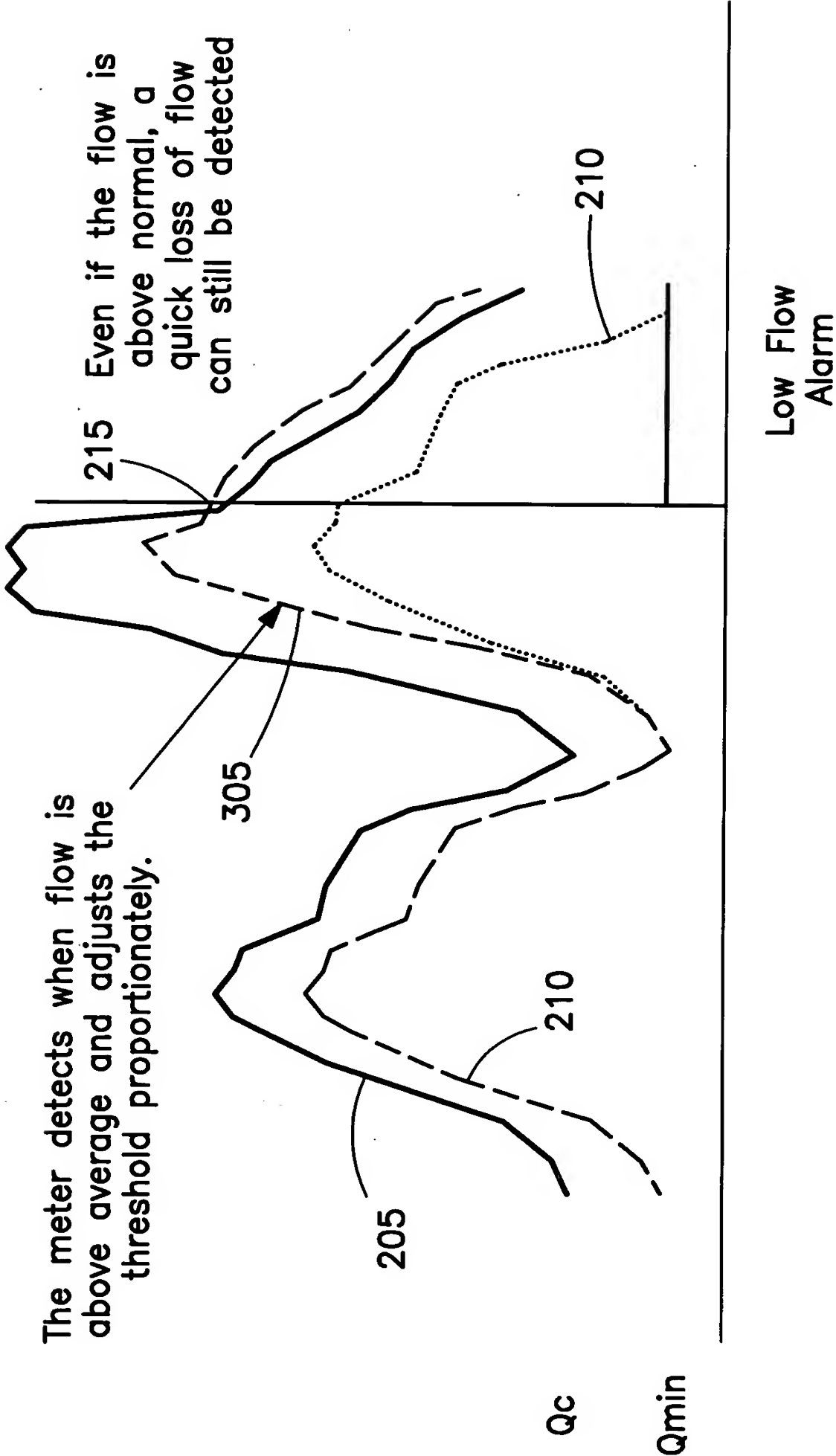


FIG. 3

Pump Stations or Industrial Flows

Erratic flow
could cause
false alarms

Instead of lowering the %
threshold, a moving boxcar
average is applied to the
flow data in the meter.

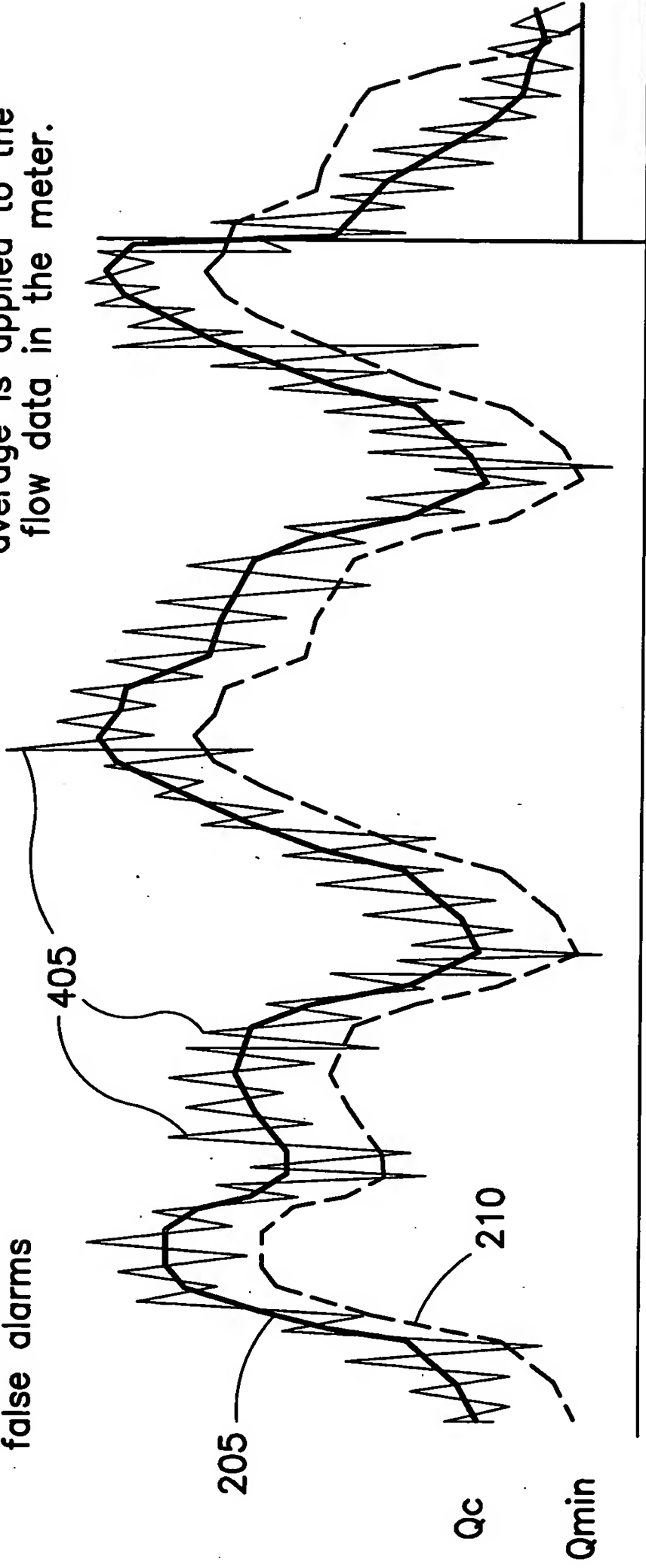


FIG. 4



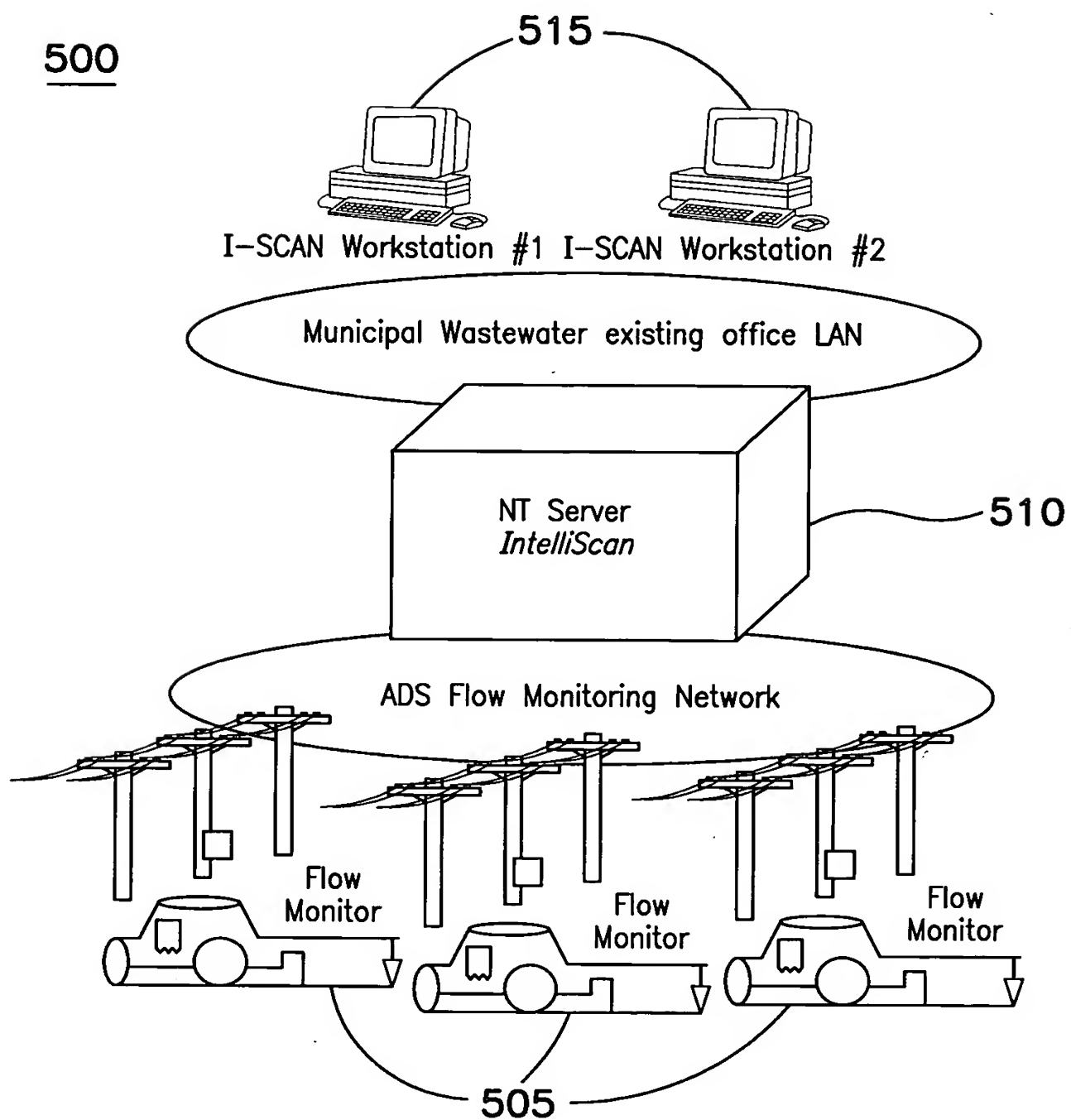


FIG. 5

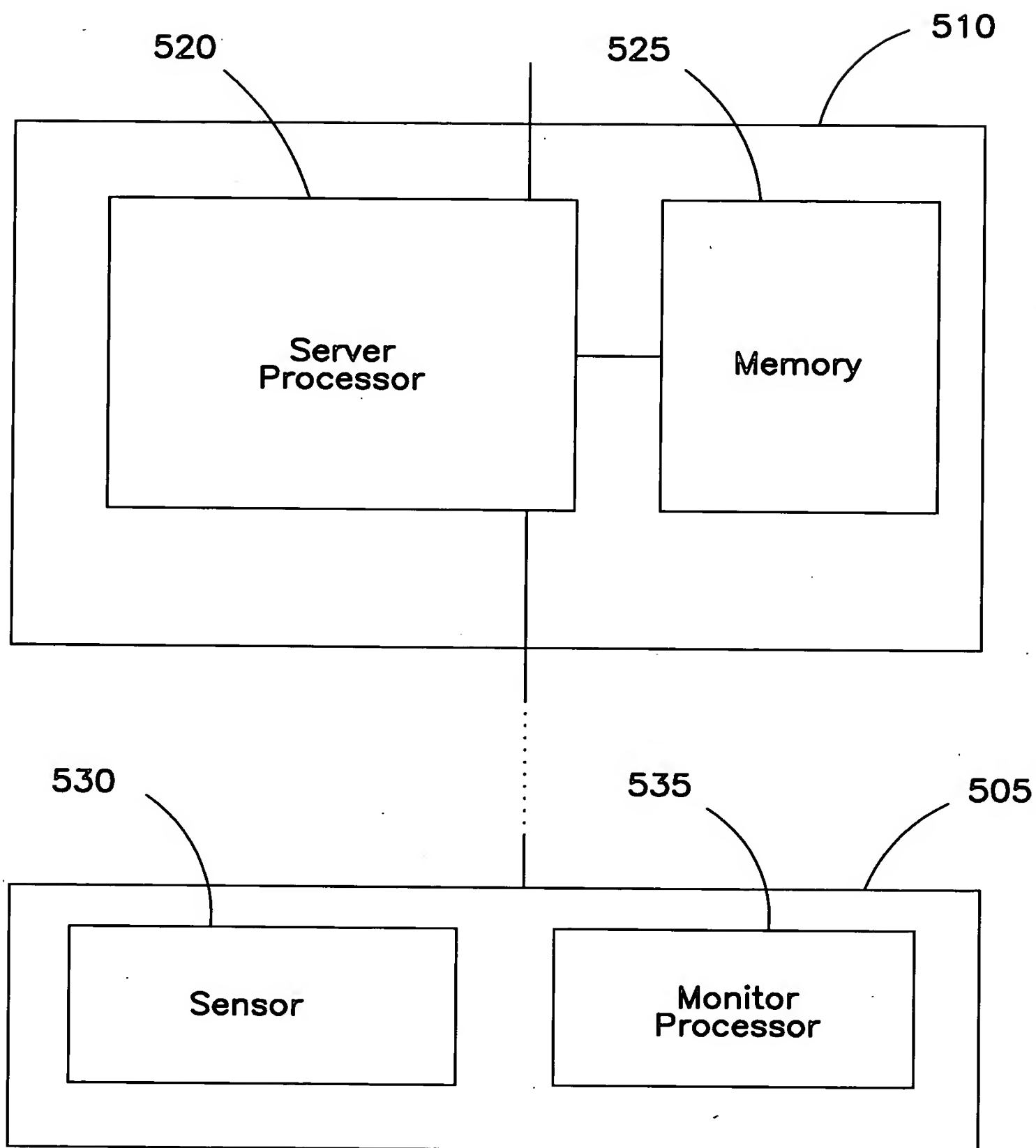


FIG. 5A

ADS ENVIRONMENTAL SERVICES, INC.
Location BASIN53_853_22
09-Mar-1996 12:00:00 to 24-May-1996 15:30:00



600

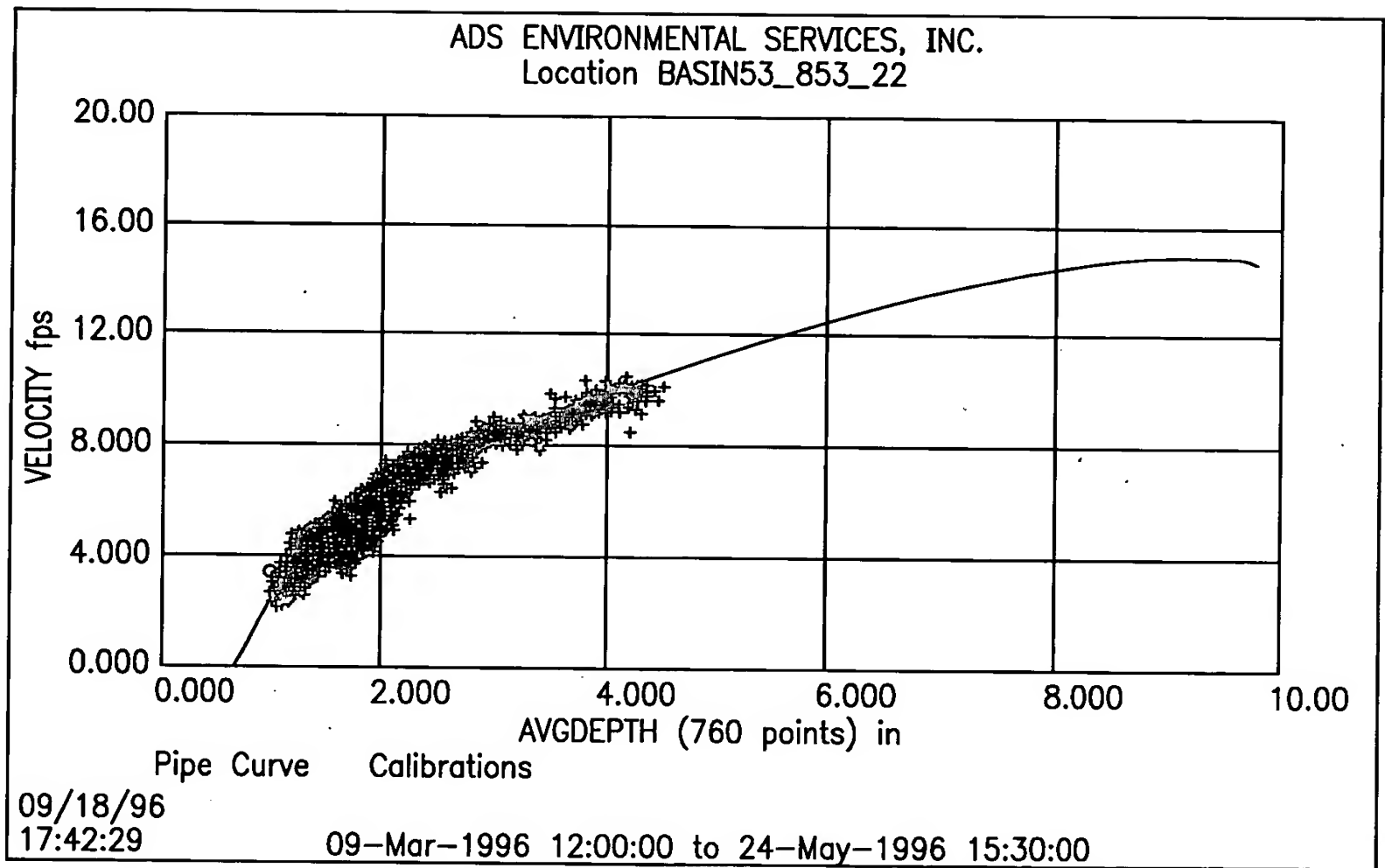


FIG. 6



700

FL08

DIAMETER=24"

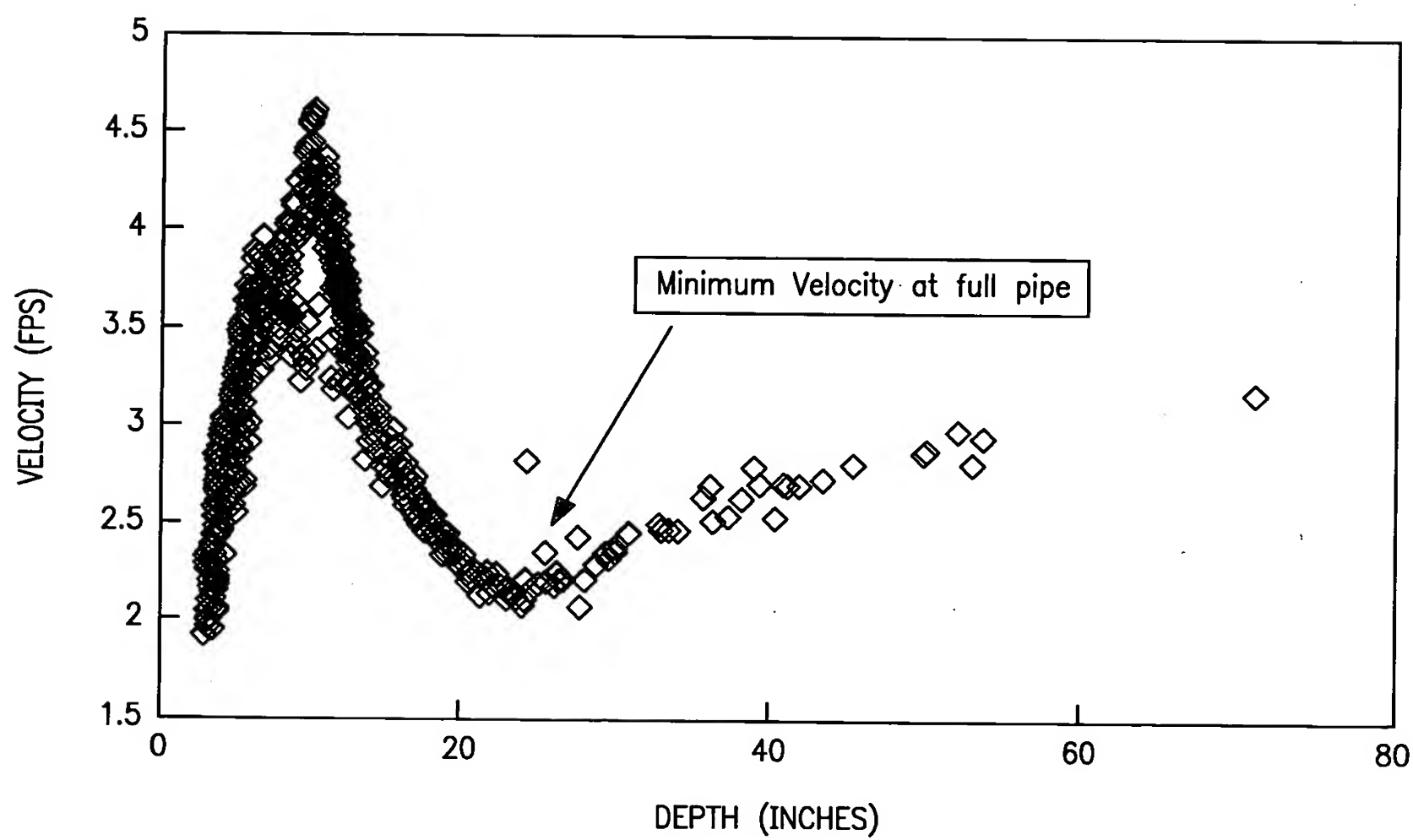


FIG. 7



800

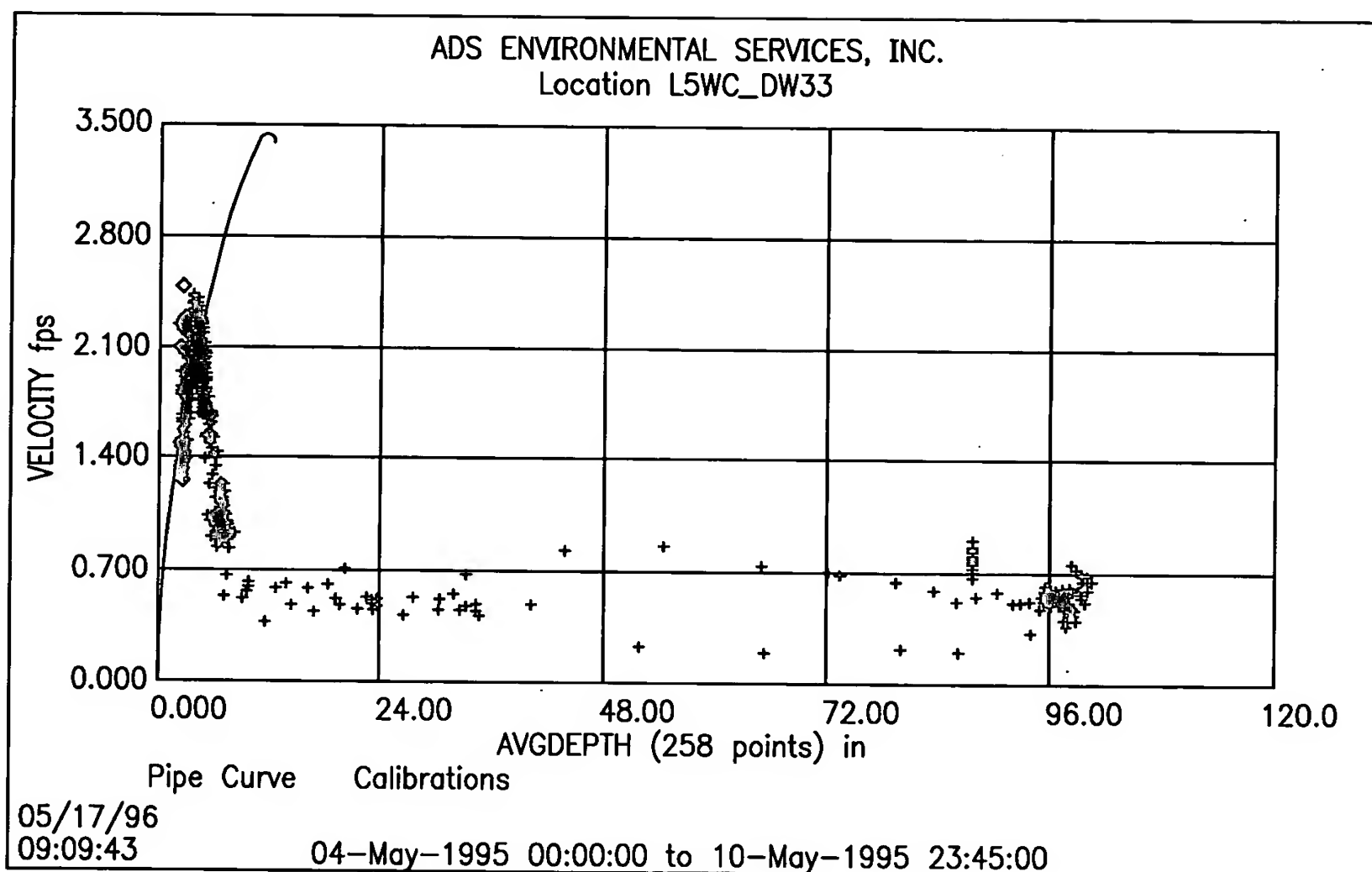


FIG. 8

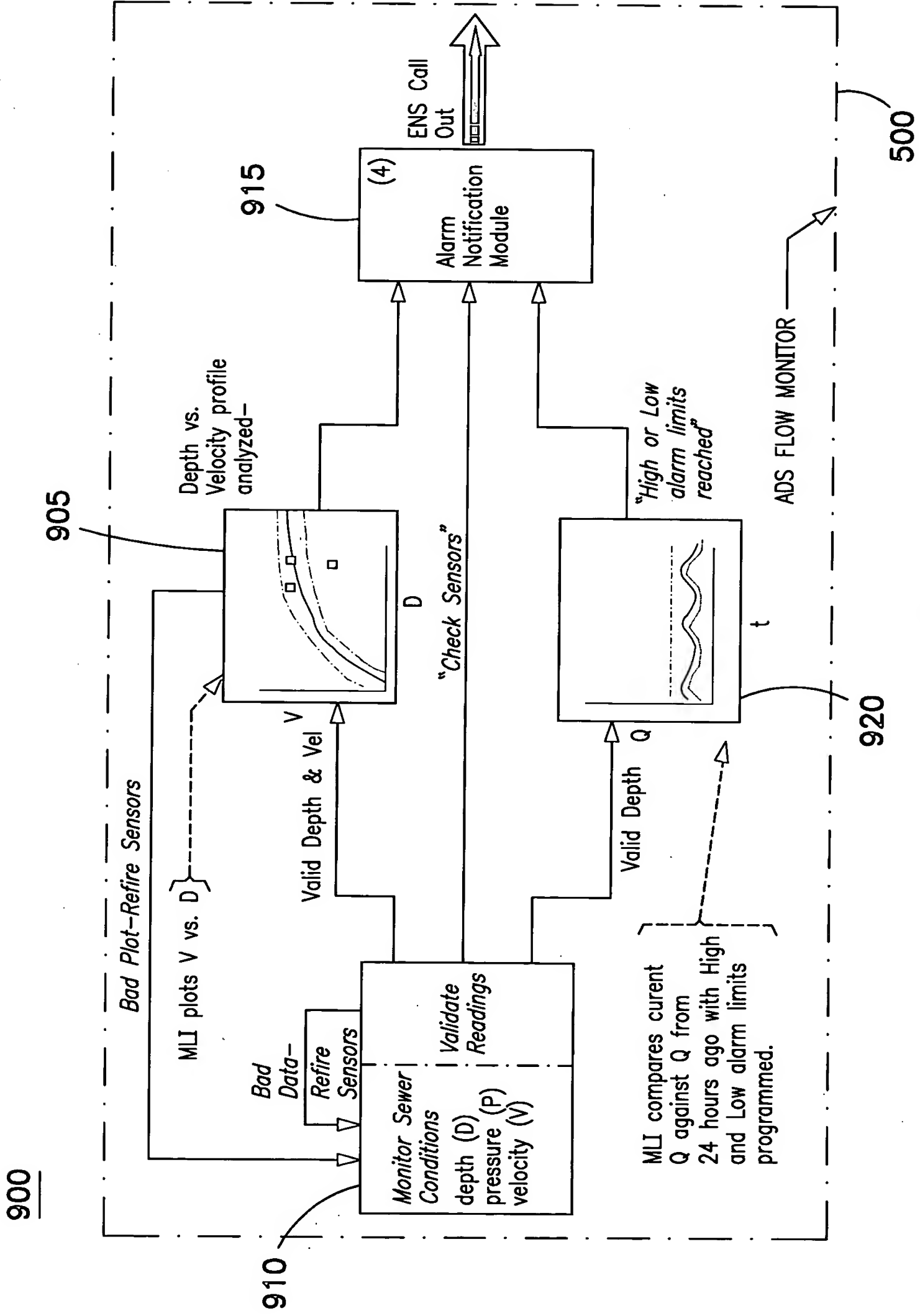
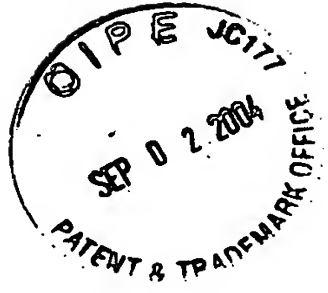
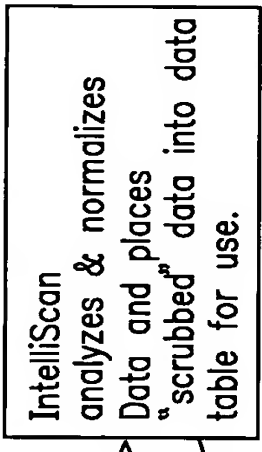
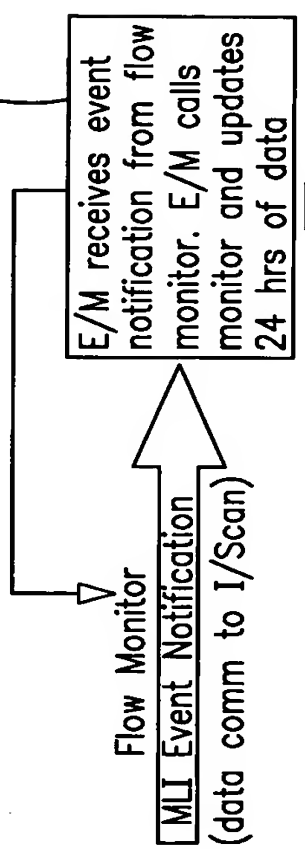


FIG. 9

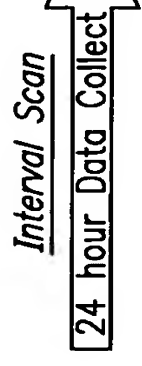
OIP
 SEP 02 2004
 PATENT & TRADEMARK OFFICE
 JG177

1000

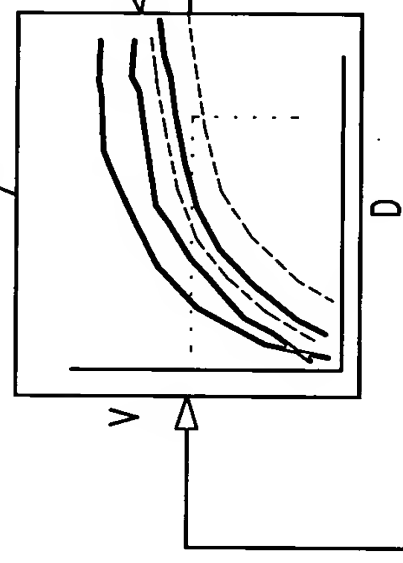
1003



1008

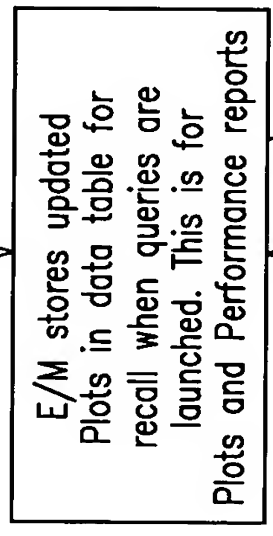


1005

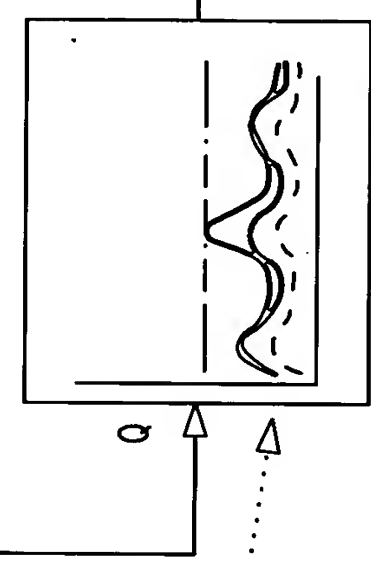


Internal Scan- E/M uses scrubbed data to generate 3 depth vs velocity profiles (24 hr, 48 hr, and 1 mo. Avg) These are represented in a scatterplot.

Event Notification- E/M plots the alarm data point against the expected hydraulic signature. If the point falls within the hydraulic signature the alarm is considered valid and an alarm callout is triggered.



1015



1010

For alarm events E/M determines priority & processes as appropriate.



1020

E/M generates an avg H/plot for w/day, w/end or h/day. Using "scrubbed" data E/M generates a H/graph of past of data avg's (w/day, w/end, hol) Past 24 hrs H/graph is plotted against avg E/M evaluates graphs against high / low limits.

FIG. 10